LAND APPLICATION OF BIOSOLIDS
JESSE R. AUSTIN
LO 14 (Fields 01-21)

LOUISA COUNTY, VIRGINIA

February 2013
Synagro
10647 Tidewater Trail
Champlain, VA 22438

SYNAGRO

March 1, 2013

Mr. Ed Stuart
Dept of Environmental Quality
Northern Virginia Regional Office
13901 Crown Court
Woodbridge, VA 22193

Dear Mr. Stuart:

Transmitted herein for your consideration is land application site for Jesse R. Austin (designated as LO 14, Fields 1-21), located in Louisa County, Virginia. This submission contains strictly site specific information. Please refer to the operations and maintenance manual submitted under separate cover for all non-site specific information.

Do not hesitate to contact me at (804) 443-2170 should you have any questions or require additional information.

Sincerely,

Madison K Holsinger
Technical Services Manager

10647 Tidewater Trail, Champlain, VA 22438 • Phone (804) 443-2170 • Fax: (804) 223-2214

SYNAGRO

FIELD SUMMARY SHEET

JESSE R. AUSTIN

LO 14

Field	Gross Acres	Buffer Acres	Net Acres	FSA Tract Number	Owner
1	28.2	4.3	23.9	NA	Austin, Jesse R. & J Anne
2	35.2	2.9	32.3	NA	Austin, Jesse R. & J Anne
3	20.7	0.7	20	NA	Austin, Jesse R. & J Anne
4	35.8	1.6	34.2	NA	Austin, Jesse R. & J Anne
5	11.2	0	11.2	NA	Austin, Jesse R. & J Anne
6	43.1	0	43.1	NA	Austin, Jesse R. & J Anne
7	13	1	12	NA	Austin, Jesse R. & J Anne
8	26.8	1.4	25.4	NA	Austin, Jesse R. & J Anne
9	20.5	0.4	20.1	NA	Austin, Jesse R. & J Anne
10	22.7	0.8	21.9	NA	Austin, Jesse R. & J Anne
11	24.3	2	22.3	NA	Austin, Jesse R. & J Anne
12	46	4	42	NA	Austin, Jesse R. & J Anne
13	14.8	1.3	13.5	NA	Austin, Jesse R. & J Anne
14	33.4	2.8	30.6	NA	Austin Land & Cattle Co. Inc
15	21.6	7.4	14.2	NA	Austin Land & Cattle Co. Inc
16	24.6	3.8	20.8	NA	Austin Land & Cattle Co. Inc
17	19.4	0.1	19.3	NA	Austin Land & Cattle Co. Inc
18	80	0.6	79.4	NA	Austin Land & Cattle Co. Inc
19	28.1	1	27.1	NA	Austin Land & Cattle Co. Inc
20	37.4	0.1	37.3	NA	Austin, Jesse R. & J Anne
21	18.2	0.7	17.5	NA	Austin, Jesse R. & J Anne
Totals:	**605**		**568.1**		

Appendix I

VIRGINIA POLLUTION ABATEMENT APPLICATION
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This biosolids/industrial residuals land application agreement is made on 2/3/12 between Jesse R. Austin referred to here as "Landowner", and Synagro, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:
I am the registered owner of real property known as LO - 14, located in Louisa, Virginia, which includes the agricultural sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
27-56	27-9	27-6-3	27-6-6
27-6-1	27-12	27-6-4	27-6-7
27-22	27-6-2	27-6-5	27-6-8

☒ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: ☐ I am the sole owner of the properties identified herein.
☒ I am one of multiple owners of the properties identified herein.

In the event that I, the landowner, sell or transfer all or part of the property to which biosolids have been applied within 36 months of the latest date of biosolids application, I shall:

1. Notify the purchaser of the applicable public access and crop management restrictions no later than the closing date; and
2. Notify the permit holder of the sale within two weeks following closing.

I have no other agreements for land application on the fields identified herein. I will notify the permittee immediately if conditions change such that the fields are no longer available to the permittee for application or any part of this agreement becomes invalid.

I hereby grant permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. I also grant permission for DEQ staff to conduct inspections on my land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance.

Class B biosolids	Water treatment residuals	Food processing waste	Other industrial sludges
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

Jesse R. Austin — Landowner – Printed Name
Jesse R. Austin — Signature
3870 Chalk Level Rd Louisa VA 23093 — Mailing Address

Permittee:
Synagro, the permittee, agrees to apply biosolids and/or industrial residuals on the landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia. Permittee will provide a copy of the NMP to the landowner within 30 days after land application has commenced. If the plan requires modification to reflect the actual application rates or farming practices at the site, a revised plan will be provided within 2 weeks of the modification.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for land application and specifically prior to any particular application to landowner's land. Notice shall include the source of residuals to be applied.

Lee C Rosson — Permittee – Authorized Representative Printed Name
Signature
10647 Tidewater Trail Champlain VA 22438 — Mailing Address

Permittee: Synagro **Permit # or County:** Louisa

Landowner: Jesse R. Austin ***Farm name or address:*** 3870 Chalk Level Rd Louisa VA 23093

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, at least 30 days after land application at that site was completed.
2. Public Access
   a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
   b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
   c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
3. Crop Restrictions:
   a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
   b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
   c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
   d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
   e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy).
4. Livestock Access Restrictions:
   Following biosolids application to pasture or hayland sites:
   a. Meat producing livestock shall not be grazed for 30 days,
   b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
   c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on landowner's land for three years following the application of biosolids or industrial residuals borne cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

Jesse R Austin — 02/03/12

Landowner's Signature — Date

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FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This biosolids/industrial residuals land application agreement is made on 2/3/12 between J. Anne Austin referred to here as "Landowner", and Synagro, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

Landowner:
I am the registered owner of real property known as LO - 14, located in Louisa, Virginia, which includes the agricultural sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

Tax Parcel ID	Tax Parcel ID	Tax Parcel ID	Tax Parcel ID
27-56	27-9	27-6-3	27-6-6
27-6-1	27-12	27-6-4	27-6-7
27-22	27-6-2	27-6-5	27-6-8

☒ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: ☐ I am the sole owner of the properties identified herein.
☒ I am one of multiple owners of the properties identified herein.

In the event that I, the landowner, sell or transfer all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, I shall:

1. Notify the purchaser of the applicable public access and crop management restrictions no later than the closing date; and
2. Notify the permit holder of the sale within two weeks following closing.

I have no other agreements for land application on the fields identified herein. I will notify the permittee immediately if conditions change such that the fields are no longer available to the permittee for application or any part of this agreement becomes invalid.

I hereby grant permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. I also grant permission for DEQ staff to conduct inspections on my land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance.

Class B biosolids	Water treatment residuals	Food processing waste	Other industrial sludges
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

J. Anne Austin — Landowner – Printed Name
J. Anne Austin — Signature
3870 Chalk Level Road, Louisa, Va. 23093 — Mailing Address

Permittee:
Synagro, the permittee, agrees to apply biosolids and/or industrial residuals on the landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia. Permittee will provide a copy of the NMP to the landowner within 30 days after land application has commenced. If the plan requires modification to reflect the actual application rates or farming practices at the site, a revised plan will be provided within 2 weeks of the modification.

Permittee agrees to notify landowner or landowner designee of the proposed schedule for land application and specifically prior to any particular application to landowner's land. Notice shall include the source of residuals to be applied.

Lee C Rosson — Permittee – Authorized Representative Printed Name
Lee C Rosson — Signature
10647 Tidewater Trail, Champlain VA 22438 — Mailing Address

Permittee: Synagro **Permit # or County:** Louisa

Landowner: J. Anne Austin ***Farm name or address:*** 3870 Chalk Level Rd Louisa, VA 23093

Landowner Site Management Requirements:

I, the landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

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   b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
   c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority
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J. Anne Austin 02/03/12

Landowner's Signature Date

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Landowner:
I am the registered owner of real property known as LO 14-, located in Louisa, Virginia, which includes the agricultural sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges

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27-6-1	27-12	27-6-4	27-6-7
27-22	27-6-2	27-6-5	27-6-8

☒ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: ☐ I am the sole owner of the properties identified herein.
☒ I am one of multiple owners of the properties identified herein.

In the event that I, the landowner, sell or transfer all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, I shall:

1. Notify the purchaser of the applicable public access and crop management restrictions no later than the closing date; and
2. Notify the permit holder of the sale within two weeks following closing.

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Class B biosolids	Water treatment residuals	Food processing waste	Other industrial sludges
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

J. Anne Austin — Landowner – Printed Name
J. Anne Austin — Signature
3870 Chalk Level Road, Louisa, VA. 23093 — Mailing Address

Austin Land & Cattle Company, Inc.

Permittee:

_____, the permittee, agrees to apply biosolids and/or industrial residuals on the landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia. Permittee will provide a copy of the NMP to the landowner within 30 days after land application has commenced. If the plan requires modification to reflect the actual application rates or farming practices at the site, a revised plan will be provided within 2 weeks of the modification.

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Lee P Rosser — Permittee – Authorized Representative Printed Name
Lee P Rosser — Signature
10647 Tidewater Trail, Champlain VA 22438 — Mailing Address

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Landowner:
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27-22	27-6-2	27-6-5	27-6-8

☒ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one: ☐ I am the sole owner of the properties identified herein.
☒ I am one of multiple owners of the properties identified herein.

In the event that I, the landowner, sell or transfer all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, I shall:

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Class B biosolids	Water treatment residuals	Food processing waste	Other industrial sludges
☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No	☒ Yes ☐ No

Jesse R. Austin — Jesse R. Austin — 3870 Chalk Level Rd
Landowner – Printed Name — Signature — Mailing Address

Austin Land & Cattle Company, Inc. — Louisa VA 23093

Permittee:

_____, the permittee, agrees to apply biosolids and/or industrial residuals on the landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with §10.1-104.2 of the Code of Virginia. Permittee will provide a copy of the NMP to the landowner within 30 days after land application has commenced. If the plan requires modification to reflect the actual application rates or farming practices at the site, a revised plan will be provided within 2 weeks of the modification.

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Lee C Rosser — 10647 Tidewater Trail, Champlain, VA 22438
Permittee – Authorized Representative Printed Name — Signature — Mailing Address

Tax ID Landowner Identification Sheet

Landowner	Field #	Tax ID
AUSTIN, JESSE R & J ANNE	14-01	27 - 56
AUSTIN, JESSE R & J ANNE	14-02	27 - 56
AUSTIN, JESSE R & J ANNE	14-03	27 - 6 - 1 27 - 56
AUSTIN, JESSE R & J ANNE	14-04	27 - 56
AUSTIN, JESSE R & J ANNE	14-05	27 - 56
AUSTIN, JESSE R & J ANNE	14-06	27 - 22
AUSTIN, JESSE R & J ANNE	14-07	27 - 22
AUSTIN, JESSE R & J ANNE	14-08	27 - 22
AUSTIN, JESSE R & J ANNE	14-09	27 - 22
AUSTIN, JESSE R & J ANNE	14-10	27 - 9
AUSTIN, JESSE R & J ANNE	14-11	27 - 9
AUSTIN, JESSE R & J ANNE	14-12	27 - 9, 12
AUSTIN, JESSE R & J ANNE	14-13	27 - 9
AUSTIN LAND & CATTLE COMPANY INC		15 - 9
AUSTIN LAND & CATTLE COMPANY INC	14-14	15 - 9
AUSTIN LAND & CATTLE COMPANY INC	14-15	15 - 9
AUSTIN LAND & CATTLE COMPANY INC	14-16	15 - 9
AUSTIN LAND & CATTLE COMPANY INC	14-17	15 - 9
AUSTIN LAND AND CATTLE COMPANY INC	14-18	41 - 233
AUSTIN LAND AND CATTLE COMPANY INC	14-19	41 - 233
AUSTIN, JESSE R & J ANNE	14-20	27 - 6 - (1-9)
AUSTIN, JESSE R & J ANNE	14-21	27 - 6 - (8-12)

Field #	Latitude (north)	Longitude (west)
14-01	38° 04' 01.99"	77° 56' 02.92"
14-02	38° 04' 11.20"	77° 55' 58.64"
14-03	38° 04' 15.34"	77° 56' 12.31"
14-04	38° 03' 52.58"	77° 56' 10.11"
14-05	38° 03' 55.10"	77° 56' 23.86"
14-06	38° 04' 06.70"	77° 56' 38.89"
14-07	38° 04' 00.91"	77° 56' 37.18"
14-08	38° 04' 16.14"	77° 56' 27.67"
14-09	38° 04' 24.32"	77° 56' 38.35"
14-10	38° 04' 28.69"	77° 56' 23.88"
14-11	38° 04' 42.43"	77° 56' 40.49"
14-12	38° 04' 39.48"	77° 56' 59.49"
14-13	38° 04' 56.98"	77° 56' 37.16"
14-14	38° 05' 13.08"	77° 56' 48.24"
14-15	38° 05' 08.03"	77° 56' 34.31"
14-16	38° 05' 02.46"	77° 56' 52.22"
14-17	38° 04' 53.83"	77° 56' 54.25"
14-18	38° 03' 41.75"	77° 58' 14.28"
14-19	38° 01' 39.45"	77° 57' 42.07"
14-20	38° 04' 27.76"	77° 55' 58.25"
14-21	38° 04' 30.74"	77° 55' 44.62"

Haul Route:

The location maps in conjunction with the above latitude and longitude coordinates are a route planning tool meant to be a guide to indicate suggested haul routes for various preferences; to include but not limited to all federal, state, and local granted STAA access routes.

Tax Map ID 27-22, 23, 56, 27-6-1

Scale: 1:18055.954822	Date: 05/03/2012	Printed By:

[redacted]a County assumes no liability for any errors, omissions, or inaccuracies in the information provided regardless of the cause of such or for any decision made, action taken, or action not taken by the user in reliance upon any maps or data provided herein. Please consult official County plats and records for official information.

Tax Map ID 27-9, 12

Scale: 1:18055.954822	Date: 05/03/2012	Printed By:

[redacted]sa County assumes no liability for any errors, omissions, or inaccuracies in the information provided regardless of the cause of such or for any decision made, action taken, or action not taken by the user in reliance upon any maps or data provided herein. Please consult official County plats and records for official information.

Tax Map ID 15-9

N

Scale: 1:18055.954822	Date: 05/04/2012	Printed By:

[redacted]a County assumes no liability for any errors, omissions, or inaccuracies in the information provided regardless of the cause of such or for any decision made, action taken, or action not taken by the user in reliance upon any maps or data provided herein. Please consult official County plats and records for official information.

Tax Map ID 27-6-(1-12), 27-58

Scale: 1:9027.977411	Date: 05/04/2012	Printed By:

Tax Map ID 41-233, 250

Scale: 1:18055.954822	Date: 05/04/2012	Printed By:

Field	Map Unit	Acres	Percentage	Soil Series	High Water	Flood	Environmental Sensitive
14-01	GvC3	8.1	34				
14-01	AsC	4.8	20	Ashlar			Leaching
14-01	DuB	3.8	16				
14-01	AsB	3.1	13	Ashlar			Leaching
14-01	GrC2	2.6	11				
14-01	WH	1.3	6	Weh - Ches	Nov - May	Nov - June	
14-02	GrC2	11.5	38				
14-02	AsC	8.0	27	Ashlar			Leaching
14-02	AV	6.9	23	Ashlar			Leaching
14-02	CcB2	3.5	12				
14-03	GvC3	5.1	26				
14-03	AnB2	4.8	25				
14-03	AsC	3.7	19	Ashlar			Leaching
14-03	GrC2	2.1	11				
14-03	CcB2	2.0	10				
14-03	ApB3	1.7	9				
14-04	AsC3	15.1	46	Ashlar			Leaching
14-04	AV	5.0	15	Ashlar			Leaching
14-04	ClB	3.5	11	Colfax	Nov - June		
14-04	AnC2	3.0	9				
14-04	RoB	2.7	8				
14-04	DuB	1.7	6				
14-04	AsC	1.6	5	Ashlar			Leaching
14-05	AnC2	9.2	84				
14-05	DuB	1.0	9				
14-05	AnB2	0.8	7				
14-06	GrC2	14.4	34				
14-06	AnB2	7.2	17				
14-06	DuB	7.0	16				
14-06	AsC	5.1	12	Ashlar			Leaching
14-06	WoB	4.4	11	Worsham	Nov - May		
14-06	GrB2	4.4	10				
14-07	AnB2	5.3	42				
14-07	GrC2	4.1	32				
14-07	DuB	3.3	26				
14-08	AsC	12.3	49	Ashlar			Leaching
14-08	DuB	7.2	29				
14-08	ClB	3.9	16	Colfax	Nov - June		
14-08	AnB2	1.5	6				
14-09	GrC2	8.9	46				
14-09	AsC	7.9	41	Ashlar			Leaching
14-09	AnB2	2.6	13				

Field	Map Unit	Acres	Percentage	Soil Series	High Water	Flood	Environmental Sensitive
14-10	GrC2	8.3	38				
14-10	AsC	5.4	25	Ashlar			Leaching
14-10	AnB2	3.0	14				
14-10	GrB2	2.5	11				
14-10	AsB	1.7	7	Ashlar			Leaching
14-10	ClB	1.0	5	Colfax	Nov - June		
14-11	GrB2	7.2	32				
14-11	AsC3	6.4	29	Ashlar			Leaching
14-11	AsC	4.5	20	Ashlar			Leaching
14-11	AbB	3.1	14				
14-11	WH	1.0	5	Weh - Ches	Nov - May	Nov - June	
14-12	AsC	21.4	65	Ashlar			Leaching
14-12	WH	9.8	30	Weh - Ches	Nov - May	Nov - June	
14-12	MdC3	1.5	5				
14-13	GrB2	6.3	48				
14-13	WH	4.8	37	Weh - Ches	Nov - May	Nov - June	
14-13	AsC	1.9	15	Ashlar			Leaching
14-14	GrB2	8.8	33				
14-14	GvC3	6.4	24				
14-14	AnC2	5.3	20				
14-14	MaB2	3.2	12				
14-14	MdB3	1.6	6				
14-14	MdC3	1.5	5				
14-15	GrB2	3.6	25				
14-15	MaB2	2.8	20				
14-15	AlB	2.5	18				
14-15	WH	2.0	14	Weh - Ches	Nov - May	Nov - June	
14-15	AsC	1.8	12	Ashlar			Leaching
14-15	MaC2	1.6	11				
14-16	GrC2	5.9	29				
14-16	AsD	3.4	17	Ashlar			Leaching
14-16	WH	3.2	16	Weh - Ches	Nov - May	Nov - June	
14-16	GrB2	2.4	12				
14-16	IdB2	2.5	12	Iredell	Dec - April		
14-16	SeC3	1.9	9	Sekil			Leaching
14-16	IdC2	1.1	5	Iredell	Dec - April		
14-17	MaB2	8.5	48				
14-17	ClB	5.5	31	Colfax	Nov - June		
14-17	AbB	2.0	11				
14-17	WH	1.7	10	Weh - Ches	Nov - May	Nov - June	

Field	Map Unit	Acres	Percentage	Soil Series	High Water	Flood	Environmental Sensitive
14-18	AnB2	38.3	32				
14-18	NoB2	25.7	21				
14-18	NoC2	17.0	14				
14-18	DuB	12.6	10				
14-18	AsC	9.2	8	Ashlar			Leaching
14-18	ClB	9.2	8	Colfax	Nov - June		
14-18	LgB	8.9	7	Lignum	Dec - May		
14-19	WoB	7.5	28	Worsham	Nov - May		
14-19	NoB2	7.2	27				
14-19	NoC2	6.6	24				
14-19	ClB	5.8	21	Colfax	Nov - June		
14-20	GvC3	16.4	45				
14-20	AnB2	11.8	33				
14-20	AsC	8.0	22	Ashlar			Leaching
14-21	DuB	6.3	36				
14-21	AsD	4.7	27	Ashlar			Leaching
14-21	AnB2	2.4	14				
14-21	GvC3	2.1	12				
14-21	AV	2.0	11	Ashlar			Leaching

Environmentally Sensitive Areas

Field	Reason for Sensitive Area
14-01	High Water Table (Map Unit WH – 6%) Flooded Soils (Map Unit WH – 6%) Leaching Potential (Map Units AsB, AsC – 33%)
14-02	Leaching Potential (Map Unit AsC, AV – 50%)
14-03	Leaching Potential (Map Unit AsC – 19%)
14-04	High Water Table (Map Unit CIB – 11%) Leaching Potential (Map Units AsC, AsC3, AV – 66%)
14-05	None
14-06	High Water Table (Map Unit WoB – 11% Leaching Potential (Map Unit AsC – 12%)
14-07	None
14-08	High Water Table (Map Unit CIB – 16%) Leaching Potential (Map Unit AsC – 49%)
14-09	Leaching Potential (Map Unit AsC – 41%)
14-10	High Water Table (Map Unit CIB – 5%) Leaching Potential (Map Units AsB, AsC – 32%)
14-11	High Water Table (Map Unit WH – 5%) Flooded Soils (Map Unit WH – 5%) Leaching Potential (Map Units AsC, AsC3 – 49%)
14-12	High Water Table (Map Unit WH – 30%) Flooded Soils (Map Unit WH – 30%) Leaching Potential (Map Unit AsC – 65%)
14-13	High Water Table (Map Unit WH – 37%) Flooded Soils (Map Unit WH – 37%) Leaching Potential (Map Unit AsC – 15%)
14-14	None
14-15	High Water Table (Map Unit WH – 14%) Flooded Soils (Map Unit WH – 14%) Leaching Potential (Map Unit AsC – 12%)
14-16	High Water Table (Map Units IdB2, IdC2, WH – 33%) Flooded Soils (Map Unit WH – 16%) Leaching Potential (Map Units AsD, SeC3 – 26%)
14-17	High Water Table (Map Units CIB, WH – 41%) Flooded Soils (Map Unit WH – 10%)
14-18	High Water Table (Map Units CIB, LgB – 15%) Leaching Potential (Map Unit AsC – 8%)
14-19	High Water Table (Map Units CIB, WoB – 49%)
14-20	Leaching Potential (Map Unit AsC – 22%)
14-21	Leaching Potential (Map Units AsD, AV – 38%)

Louisa County Soils that are Environmentally Sensitive

Soil Map Unit	Series Name	Time of year		Environmental
		High Water	Flooded	
AsB, AsC, AsD	Ashlar			Leaching
AsC3, AsD3	Ashlar			Leaching
AV	Ashlar			Leaching
Ch	Chewacla	Nov – April	Nov – April	
ClB	Colfax	Nov – June		
Eb	Elbert	Nov – May		
FN	Fluvaquents	Nov – April	Nov – April	
Fo	Forestdale	Jan – April	Jan – April	
FrB	Fork	Oct – May	Oct – May	
IdB	Iredell	Dec – April		
IdB2, IdC2	Iredell	Dec – April		
IrA, IrB	Iredell	Dec – April		
Iv	Iredell	Dec – April		
LgB	Lignum	Dec – May		
MnB, MnC, MnD	Madison			Shallow
MoC, MoD	Madison			Shallow
SeB, SeC, SeD	Sekil			Leaching
SeC3	Sekil			Leaching
SP	Sekil			Leaching
To	Tocca		Jan – Dec	
Ts	Tocca		Jan – Dec	
We	Wehadkee	Nov – May	Nov – June	
WH	Wehadkee-Chewacla	Nov – May	Nov – June	
WoB	Worsham	Nov - May		

MAP LEGEND

House/Dwelling with a well

Rock Outcrop

Well

Lake/Pond

Slope which exceeds 15%

Intermittent Stream

Stream/River

Agricultural/Drainage Ditch

Field boundary

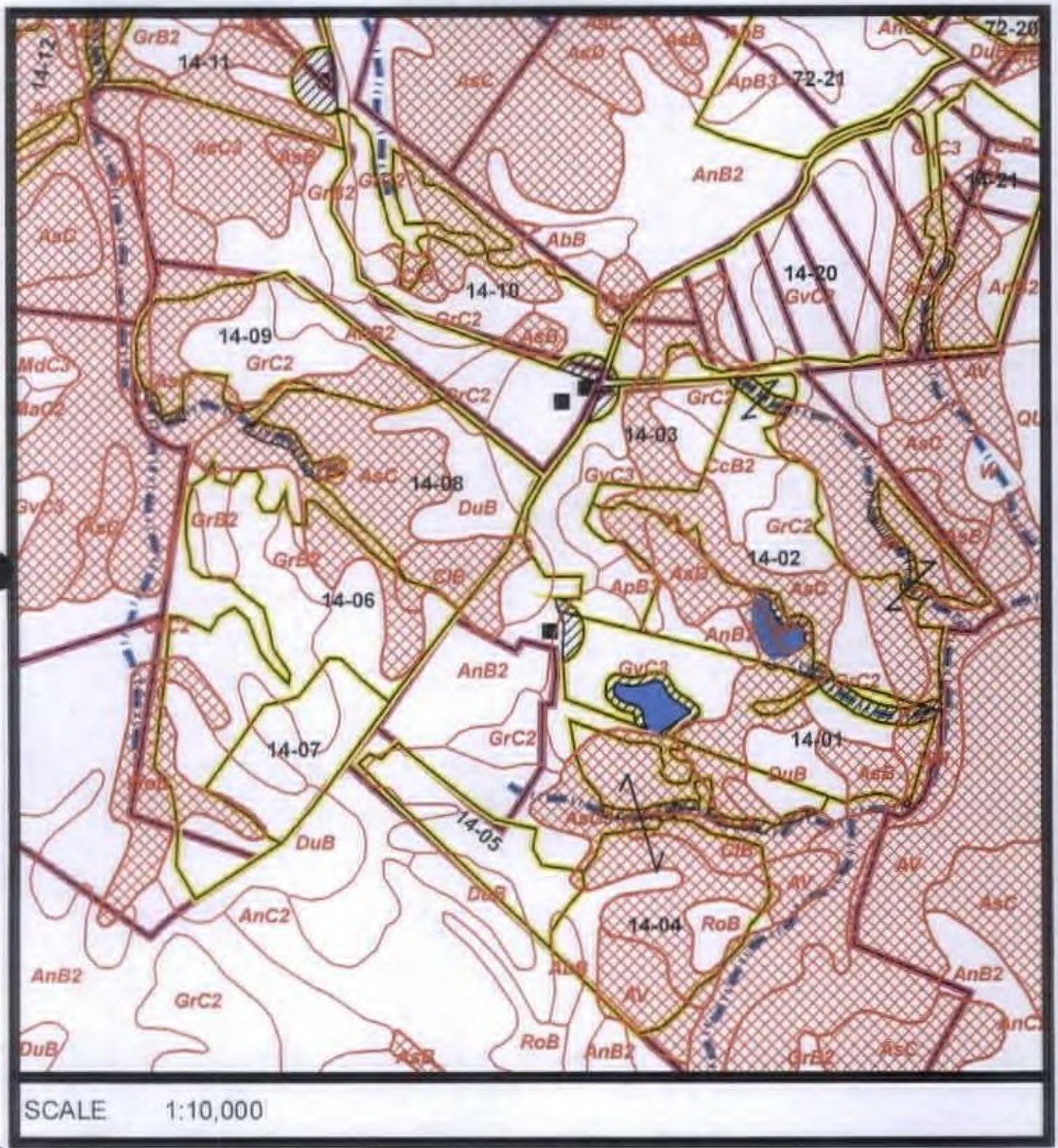
Property Line – (Standard 100' Buffer, unless waiver issued)

Revised: Jan. 13, '14

SYNAGRO

SYNAGRO

Jesse R Austin
LO14
Fields 1 – 10



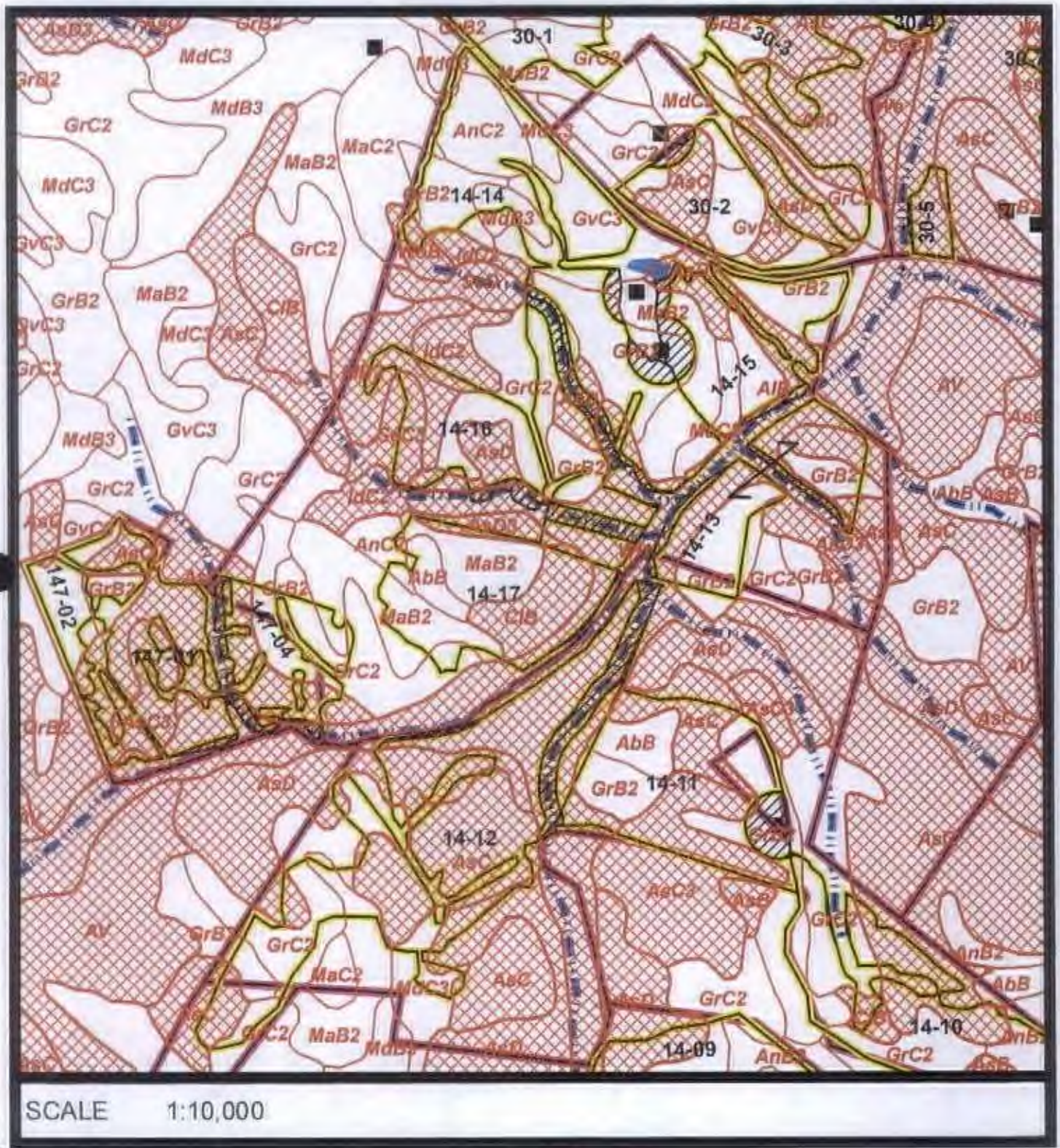
SOIL MAP

Environmentally Sensitive Soil

N

SYNAGRO

Jesse R Austin
LO14
Fields 11 – 17



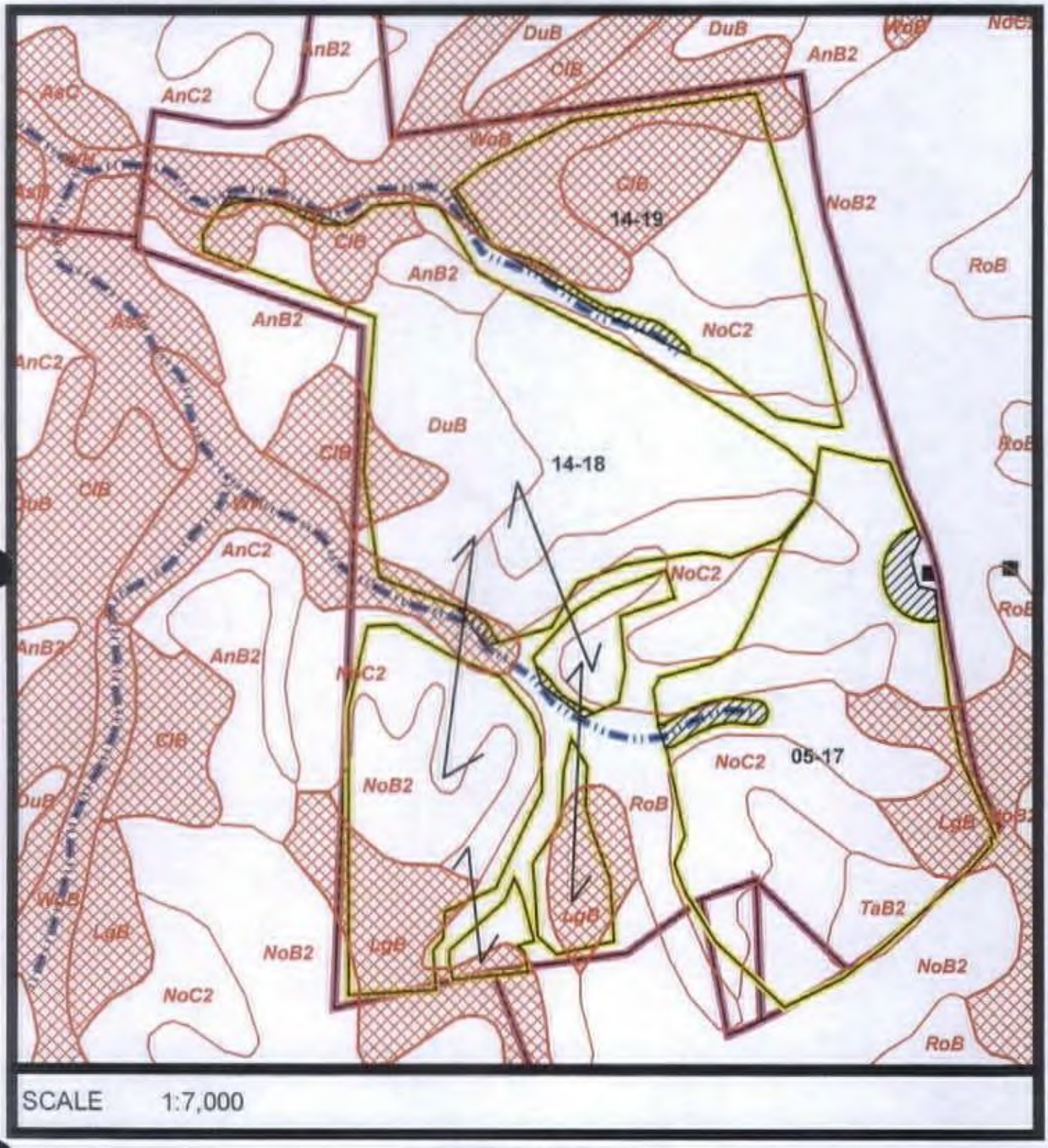
SOIL MAP

Environmentally Sensitive Soil

N

SYNAGRO

Jesse R Austin
LO14
Fields 18, 19



SOIL MAP

Environmentally Sensitive Soil

N

SYNAGRO

Jesse R Austin
LO14
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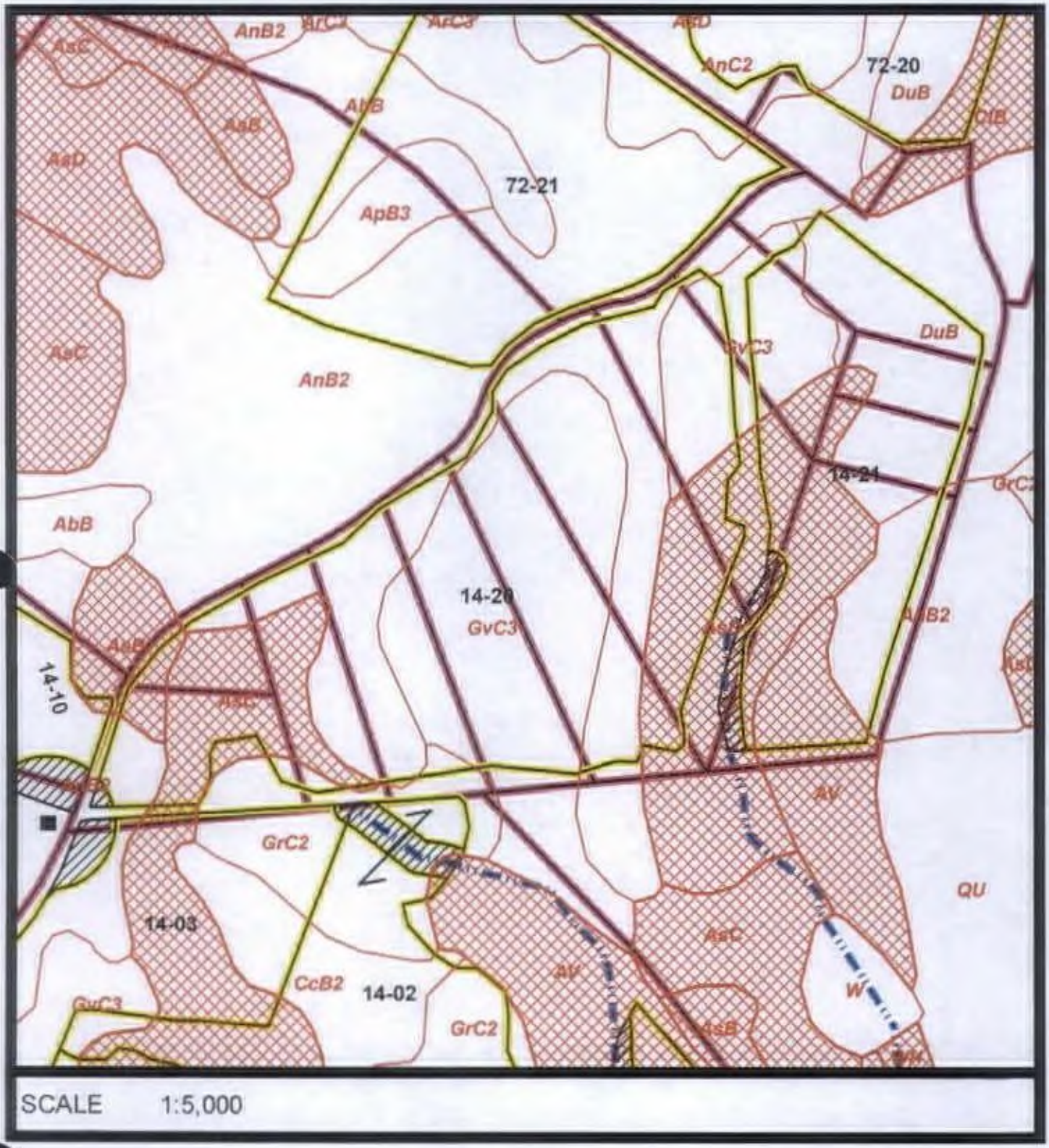

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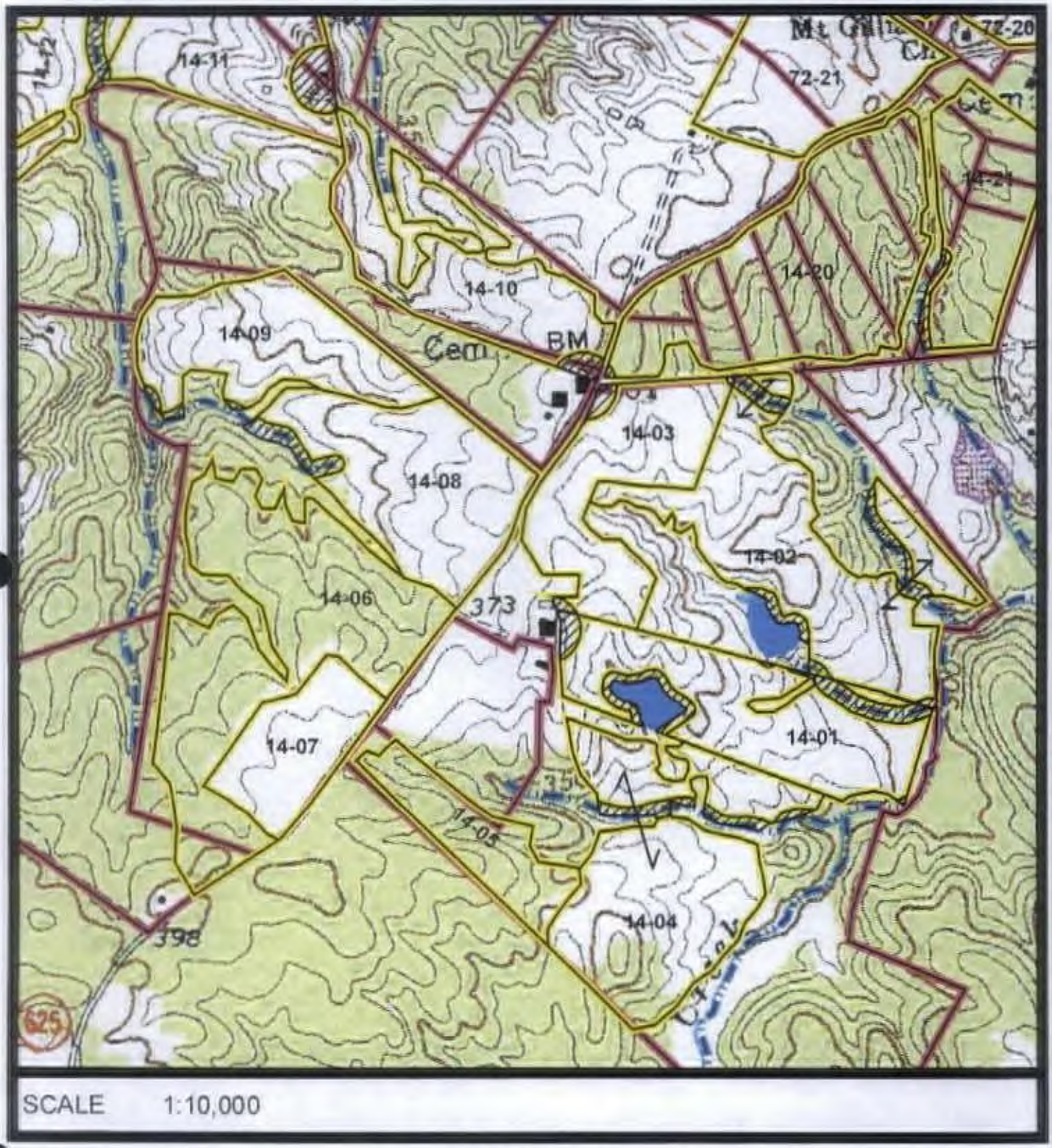
SOIL MAP

Environmentally Sensitive Soil

N

SYNAGRO

Jesse R Austin
LO14
Fields 1 – 10



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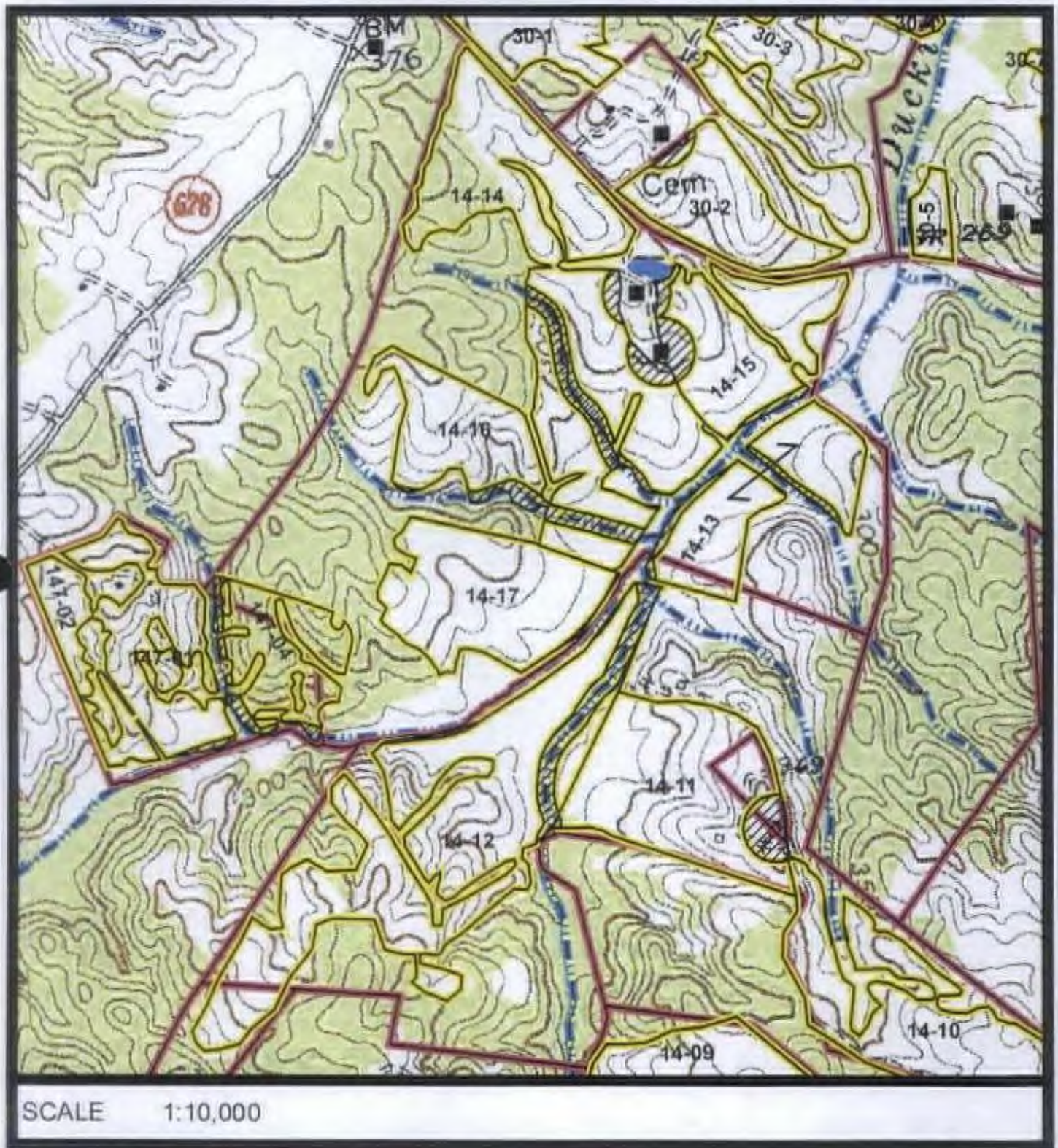
TOPO MAP

N

SYNAGRO

Jesse R Austin
LO14
Fields 11 – 17



TOPO MAP

N

SYNAGRO

Jesse R Austin
LO14
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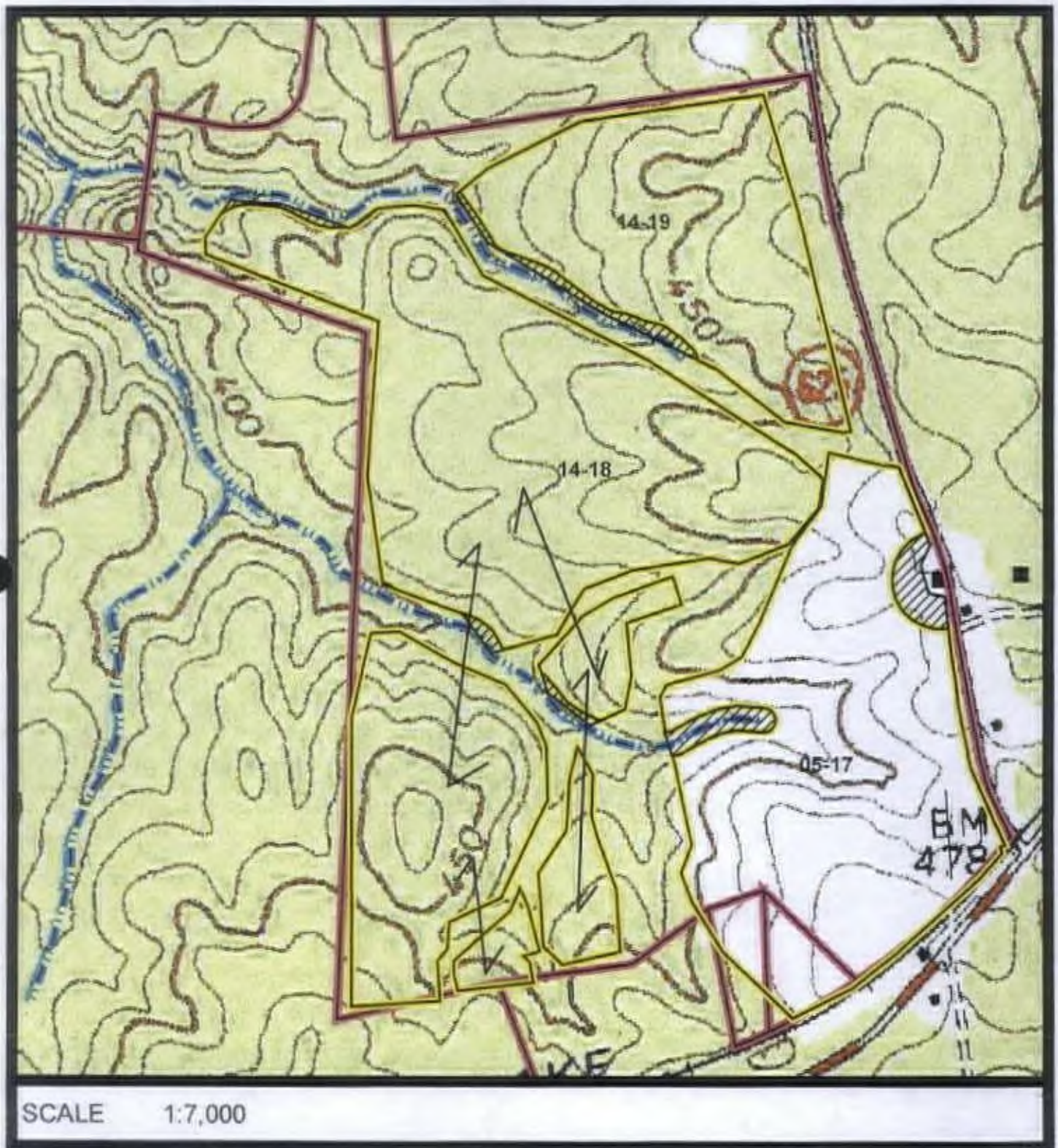

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TOPO MAP

N

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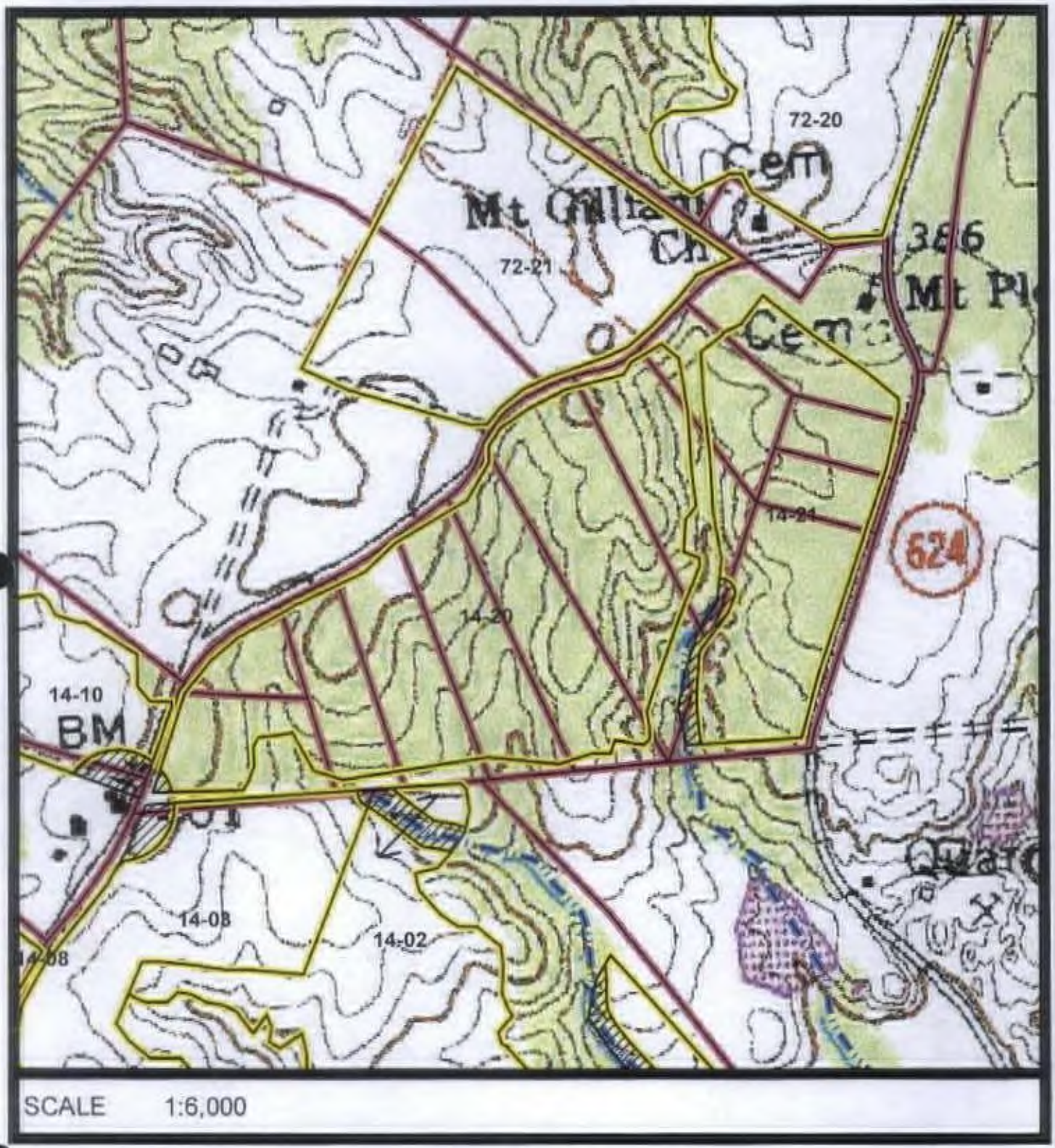

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TOPO MAP

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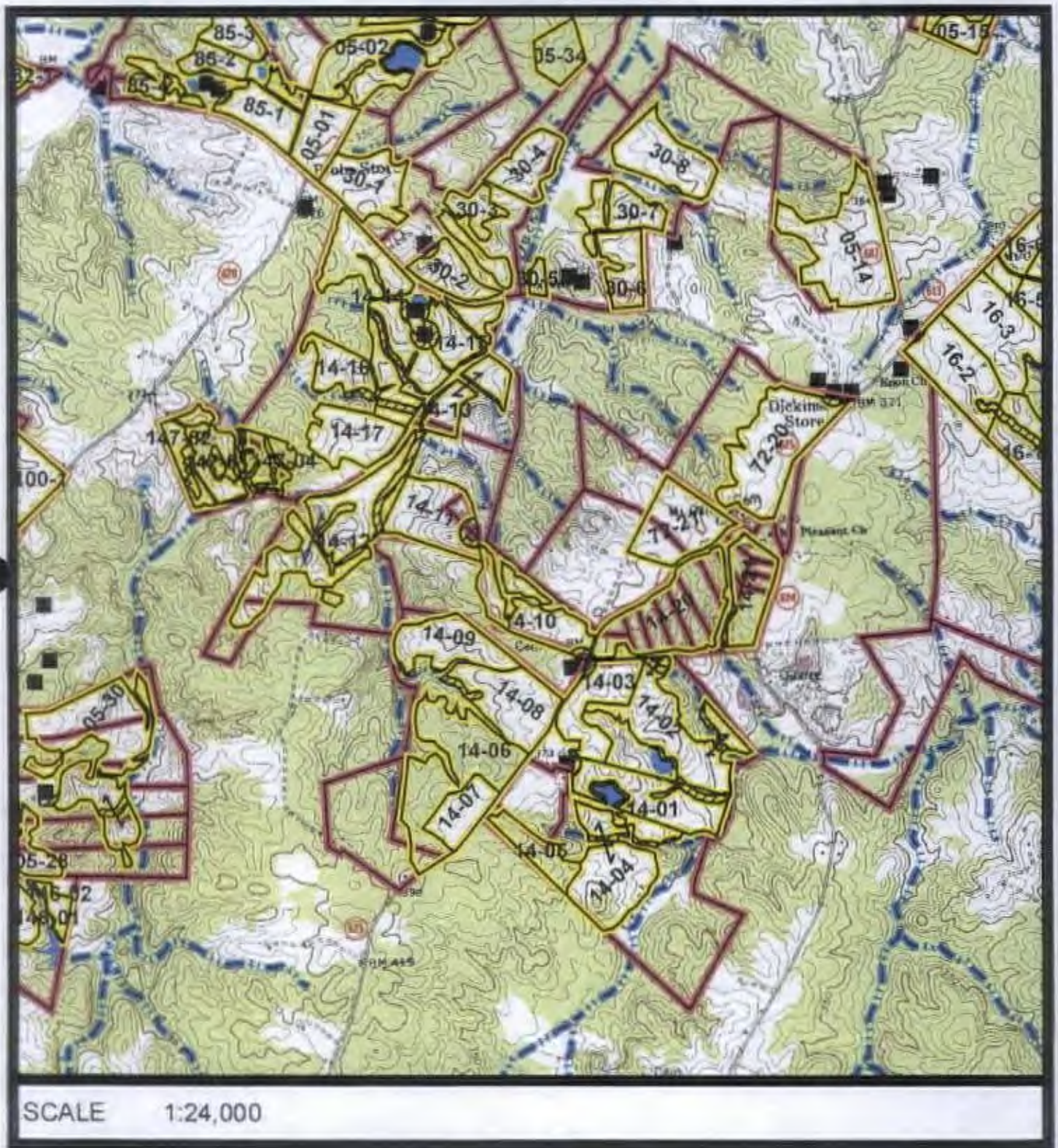

TOPO MAP

N

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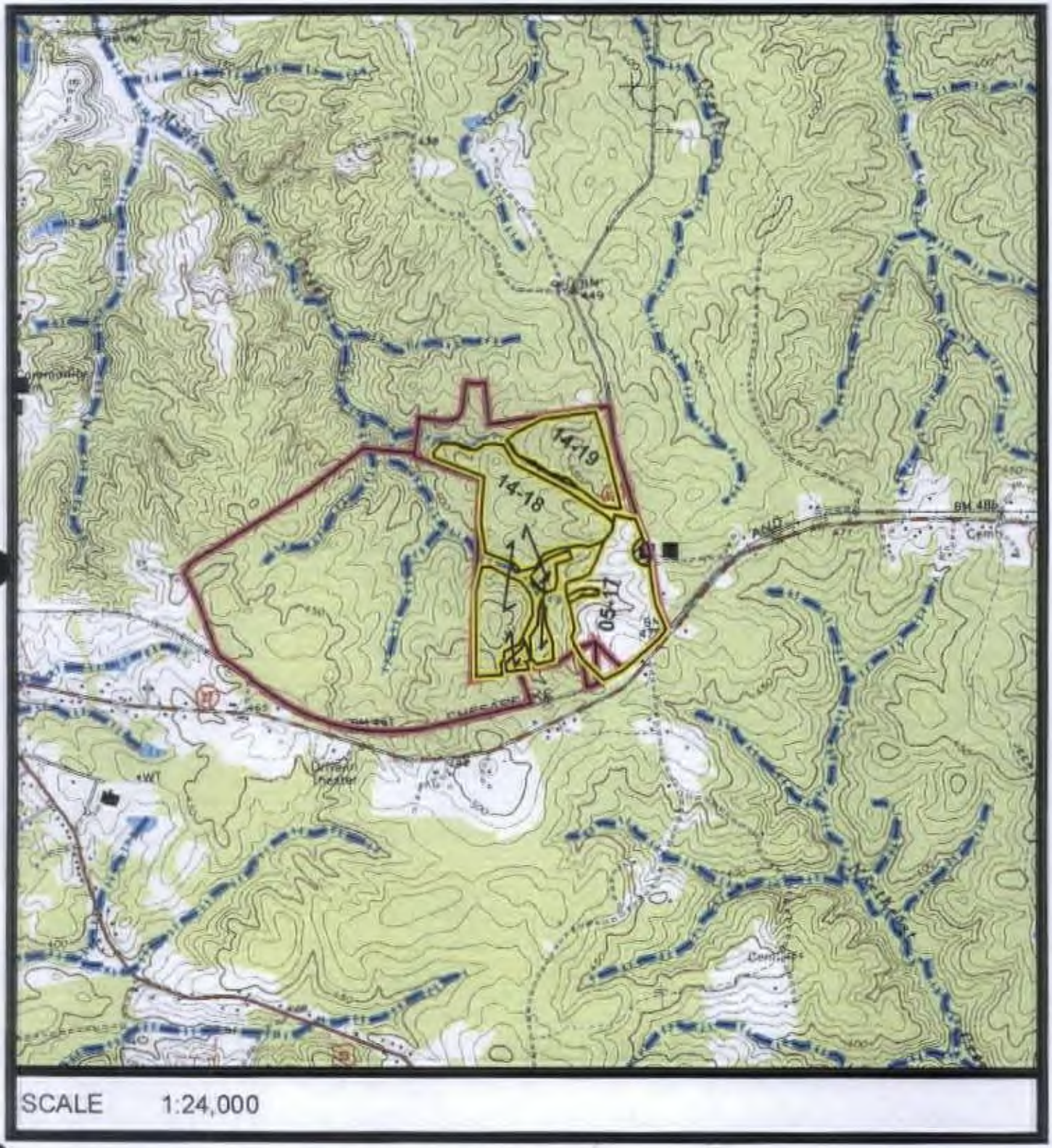

TOPO MAP

N

SYNAGRO

Jesse R. Austin
LO14
Fields 1 – 21

LOCATION MAP

N